

**Notice of Allowability**

Application No.

10/667,971

Applicant(s)

TSUCHIYA, TOMOYUKI

Examiner

Tuan C To

Art Unit

3663

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/23/2003.
2. ☒ The allowed claim(s) is/are 1-2.
3. ☒ The drawings filed on 14 July 2004 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

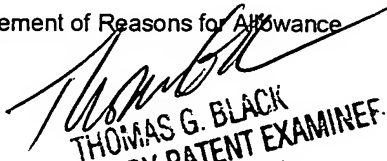
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 09/23/03, 01/30/04
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material

5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

  
THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
GROUP 3663

### **EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE**

This communication is an Examiner's reasons for allowance in response to application filed on 09/23/2003, assigned serial 10/667,971 and titled "Abnormality Determining Device for Longitudinal Acceleration Sensor for Vehicle and Method thereof"

The following is the Examiner's statement of reasons for the indication of allowable subject matter:

After carefully performing the prior art search in some areas that are relevant to the subject matter of the claimed invention, the examiner has found none of the references, either alone or in a combination, teaches or fairly suggests "An abnormality determining device for a longitudinal acceleration sensor for a vehicle comprising: ...deciding unit for setting a determination-permission region based on the estimated values of the first a determination-permission and second acceleration estimating unit so as to output a determination-permission signal when a deviation Between the vehicle acceleration estimated by the first acceleration estimating unit and the vehicle acceleration estimated by the second acceleration estimating unit is within predetermined value, and a determining unit for setting an abnormality determining region based on the vehicle acceleration estimated by the second acceleration estimating unit and for determining that the longitudinal acceleration sensor is abnormal, if the output value of the longitudinal acceleration sensor exists in the abnormality determining region for a predetermined time or longer in a state that the determination-permission deciding unit outputs a determination-permission signal", "outputting a

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determination-permission signal when a deviation between the first vehicle acceleration and the second vehicle acceleration is within a predetermined value, setting a determination-permission region based on the first and second vehicle acceleration, setting an abnormality determining region based on the second vehicle acceleration, and determining that the longitudinal acceleration sensor is abnormal, if the output value of the longitudinal acceleration sensor exists in the abnormality determining region for a predetermined time or longer a state that determination-permission signal is output”.

The prior art closest to the subject matter of claims 1 and 2 is the reference to Sasaki et al. (US 5671981A), in which the sensor malfunction detecting system in order to provide the safety during driving. Although Sasaki et al. teach the sensor devices for detecting acceleration, pressure, Sasaki et al. do not disclose that there is an acceleration estimating unit for estimating a vehicle acceleration based on throttle angle of an engine. As shown in the flow chart of figure 5, the absolute value of  $G_p - G_s$  does not derive the deviation based on wheel speed and throttle angle as specially required in claims 1 and 2 of the present application. Sasaki et al. teach the sensor malfunction detecting device (7) (Figure 18), however, that device or none of the devices disclosed in Sasaki et al. is used either for setting a determination-permission region based on the estimated values of the first and second acceleration estimating unit..., or setting an abnormality determining region based on the vehicle acceleration estimated by the second acceleration estimating unit.

For the reason discussed above, the application is now set in a condition for allowance.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (703) 308-6273. The examiner can normally be reached on from 8:00AM to 5:00PM.

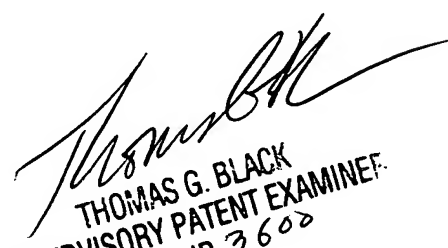
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/tc

March 01, 2005

  
THOMAS G. BLACK  
SUPERVISORY PATENT EXAMINER  
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